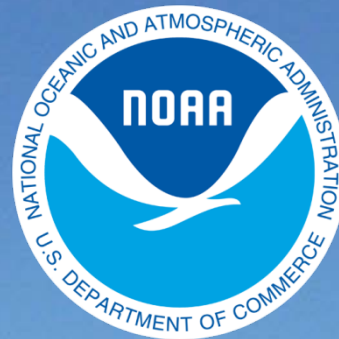


BookletChart™

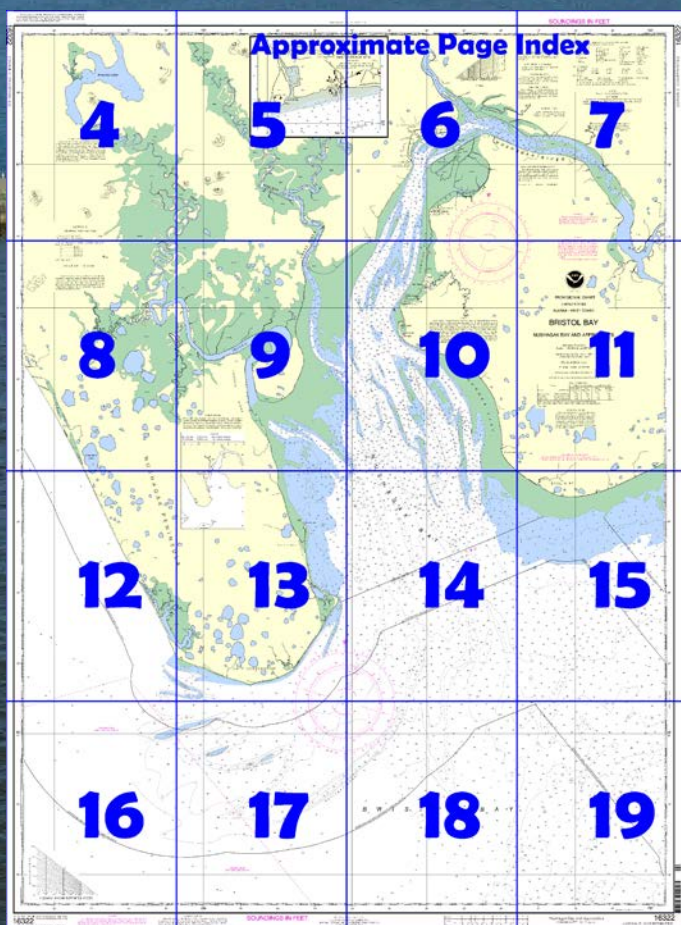


Bristol Bay – Nushagak Bay and Approaches **NOAA Chart 16322**

A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA**

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

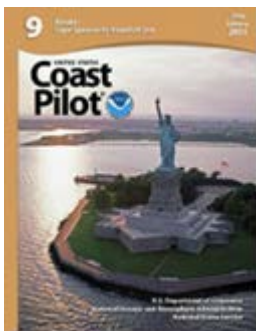
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=16322>.



(Selected Excerpts from Coast Pilot)

Nushagak Bay and Nushagak River, on the N side of Bristol Bay near its head, are important for the extensive salmon fishing and a number of large canneries that operate during the summer. The bay is 17.5 miles wide at the entrance between Protection Point and Etolin Point. The surveys of 1948-50 show that the bars and channels in the upper bay and river have changed considerably. Local authorities state that the area between Clarks Point

and Dillingham (Snag Point) is particularly subject to change on the ice runoff each spring.

Nushagak Bay and River are obstructed by extensive shoals near the shores, and by long bars, partly bare at low water, which generally extend in the direction of the channels. In the absence of aids, navigation is safe only in the daytime when the marks and distant peaks can be seen. The worst dangers in the approach are the extensive shoals S and SE of Cape Constantine, the outer one being nearly out of sight of land.

Pilotage, Nushagak.—Pilotage, except for certain exempted vessels, is compulsory for all vessels navigating the inside waters of the State of Alaska.

The Bering Sea is served by the Alaska Marine Pilots. (See **Pilotage, General** (indexed), chapter 3, for the pilot pickup stations and other details.)

Nushagak Point, on the E side of Nushagak Bay and 7 miles N from Clarks Point, is the outer end of a prominent 250-foot ridge, to the E of which is a deep valley. **Nushagak**, a small village on the point has two abandoned canneries which serve as a fish camp during summer. There are no wharves. Vessels may approach as closely as their draft permits and use small boats or barges for reaching the shore. Landing at low water is difficult because of the very sticky mud on the flats, but a good landing can be made on the gravel beach at high water. Nushagak has no post office or supplies. Mail is received through Dillingham.

From **Coffee Point** to **Snag Point**, 9 miles to the NE, the W shore of Nushagak Bay consists mostly of bluffs. **Bradford Point**, between Coffee Point and Snag Point, is opposite **Grassy Island**, which is awash at highest tides.

Kanakanak, at Bradford Point, is a small settlement which includes the former sites of Dillingham and Kanakanak, and is connected by roads with the present site of Dillingham at Snag Point. A hospital is in Kanakanak, about 7 miles from Dillingham.

Dillingham is the principal settlement and source of supply in Nushagak Bay. The village has a school and churches, and hospital facilities at Kanakanak may be reached by road. Ordinary supplies are available at several general stores. Petroleum products, except fuel oil, can be obtained from the Delta Western, Dillingham Terminal Wharf. Fuel oil for the canneries in Nushagak Bay is generally brought in by tanker early in the season and transferred to cannery barges at the anchorage off Clarks Point. Limited quantities of fuel oil can be obtained from the tanks of supply vessels handling general cargo for the bay.

Currents.—The currents in Nushagak Bay have considerable strength; velocities of about 4 knots have been observed on both the flood and the ebb. The ebb usually begins shortly before high water and continues to run after low water, roughly about 7 hours ebb and 5 hours flood. The period of slack water is usually short. The currents generally set fair with the channels, but in navigating the bay the course is often across the current and allowance must be made for it. The velocity is influenced by freshets and continued winds, which also affect the times of slack water. A current of over 5 knots may be experienced at times. (See Tidal Current Tables for predictions in Nushagak Bay.)

**U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies**

RCC Juneau

Commander
17th CG District
Juneau, Alaska

(907) 463-2000

Table of Selected Chart Notes

NUSHAGAK RIVER

Underlined figures on the areas which uncover express the heights in feet above datum of the soundings

HEIGHTS

Heights in feet above Mean High Water.

For Symbols and Abbreviations see Chart No. 1

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

LOCAL GRID

Dillingham local grid is indicated by dashed tick at 1,000 foot intervals. The last three digits are omitted.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

CURRENTS

In Nushagak Bay current velocities exceed 4 knots at times. See Tidal Current Tables, Pacific Coast of North America and Asia, North America and Asia, for predictions.

Mercator Projection
Scale 1:100,000 at Lat 58° 36'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

NOTE B

NOS hydrographic surveys in 2012 indicate significant changes in the charted location of channels and shoals from Nushagak Bay to Dillingham. Mariners should use extreme caution when navigating this area as many changes to the channels have been found.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Tuklung Mt, AK WNG-525 162.425 MHz

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 2.717" southward and 7.846" westward to agree with this chart.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 9. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 17th Coast Guard District in Juneau, Alaska, or at the Office of the District Engineer, Corps of Engineers in Anchorage, Alaska.

Refer to charted regulation section numbers.

DILLINGHAM BOAT BASIN

The entrance channel is 7 feet above MLLW; the project depth is 0 feet above MLLW in the boat basin. Consult the Corps of Engineers for controlling depths.

Jun 2008

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, and U.S. Coast Guard.

LORAN-C

GENERAL EXPLANATION

LORAN-C FREQUENCY.....100kHz

PULSE REPETITION INTERVAL

9990.....99,900 Microseconds

STATION TYPE DESIGNATORS: (Not individual station letter designators).

M.....Master

W.....Secondary

X.....Secondary

Y.....Secondary

Z.....Secondary

EXAMPLE: 9990-Y

RATES ON THIS CHART

9990-Y 9990-Z

Loran-C correction tables published by the National Geospatial-Intelligence Agency or others should not be used with this chart. The lines of position shown have been adjusted based on survey data. Every effort has been made to meet the ¼ nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the lattices in inshore waters.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

NOTE X

The 12 nautical mile territorial sea was established by Presidential Proclamation 5928, December 27, 1988, and is also the outer limit of the U.S. contiguous zone for the application of domestic law. The 3 nautical mile line, previously identified as the outer limit of the territorial sea, is retained because the proclamation states that it does not alter existing State or Federal law. The 9 nautical mile natural resources boundary off Texas, the Gulf coast of Florida, and Puerto Rico, and the 3 nautical mile line elsewhere remain the inner boundary of the Federal fisheries jurisdiction and limit of states' jurisdiction under the Submerged Lands Act (P.L. 83-31; 67 Stat. 29, March 22, 1953). These maritime limits are subject to modification, as represented on future charts. The lines shown on the most recent chart edition take precedence.

UPDATING SERVICE

FOR THIS CHART, a listing of NOTICE TO MARINERS (NM) corrections subsequent to the NM corrected through date shown in the lower left hand corner, is available from the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

COLREGS, 80.1705 (see note A)

International Regulations for Preventing Collisions at Sea, 1972.
The entire area of this chart falls seaward of the COLREGS Demarcation Line.

TIDAL INFORMATION

Place	Name	(LAT/LONG)	Height referred to datum of soundings (MLLW)			
			Mean Higher High Water	Mean High Water	Mean Low Water	Extreme Low Water
			feet	feet	feet	feet
Protection Point	(58°30'N/158°42'W)		16.9	15.2	2.5	-5.0
Snag Point	(58°02'N/158°27'W)		19.8	18.0	2.1	-5.0
Clarks Point	(58°51'N/158°33'W)		19.5	17.8	2.5	-5.0

Note: Currents: In Nushagak Bay current velocities exceed 4 knots at times. See Tidal Current Tables, Pacific Coast of North America and Asia, for predictions.

(Dec 2003)

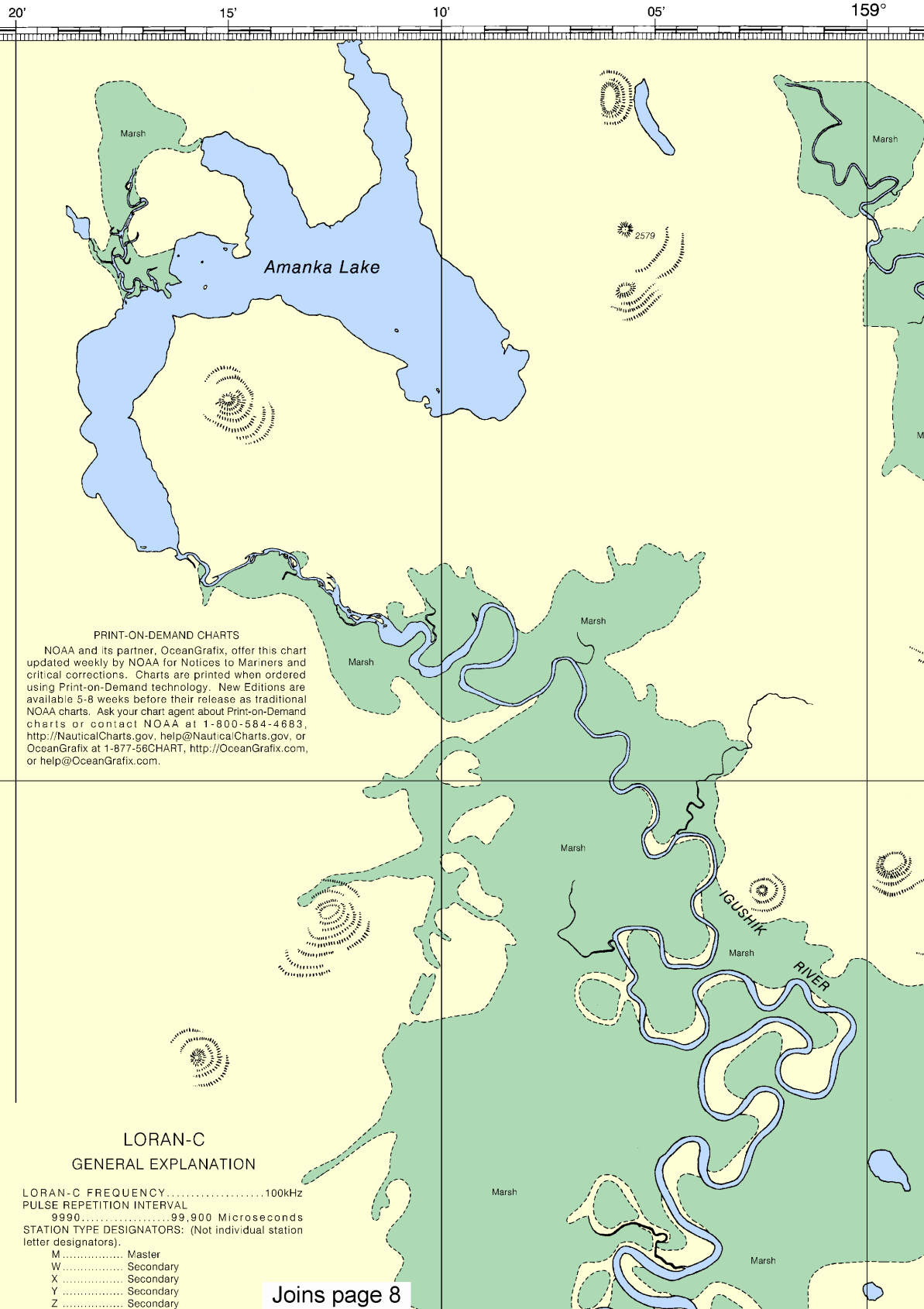
This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

16322

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4

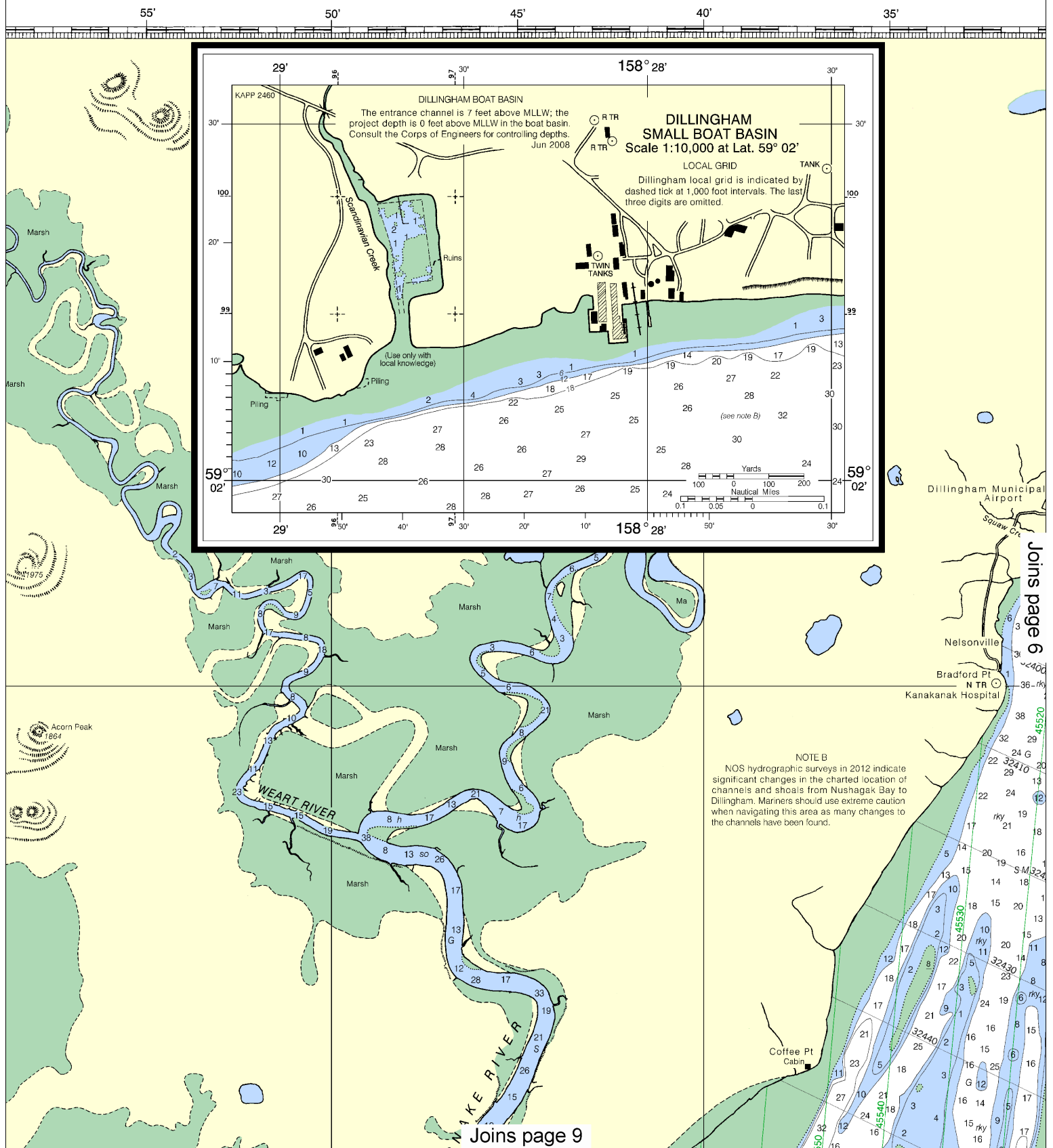
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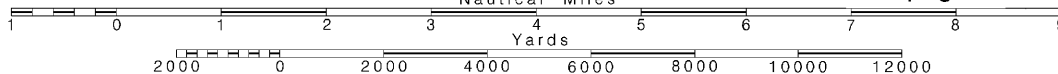
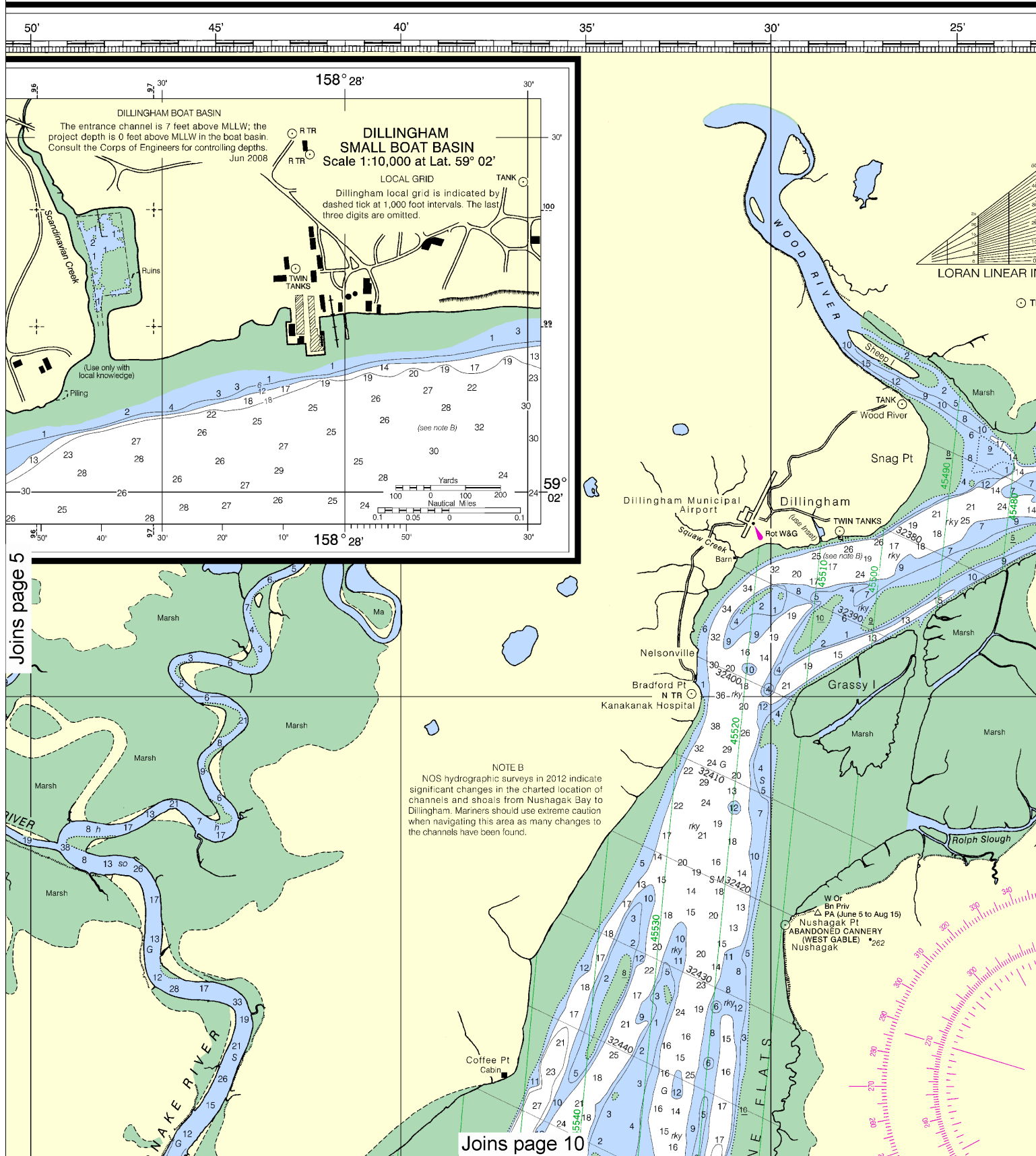


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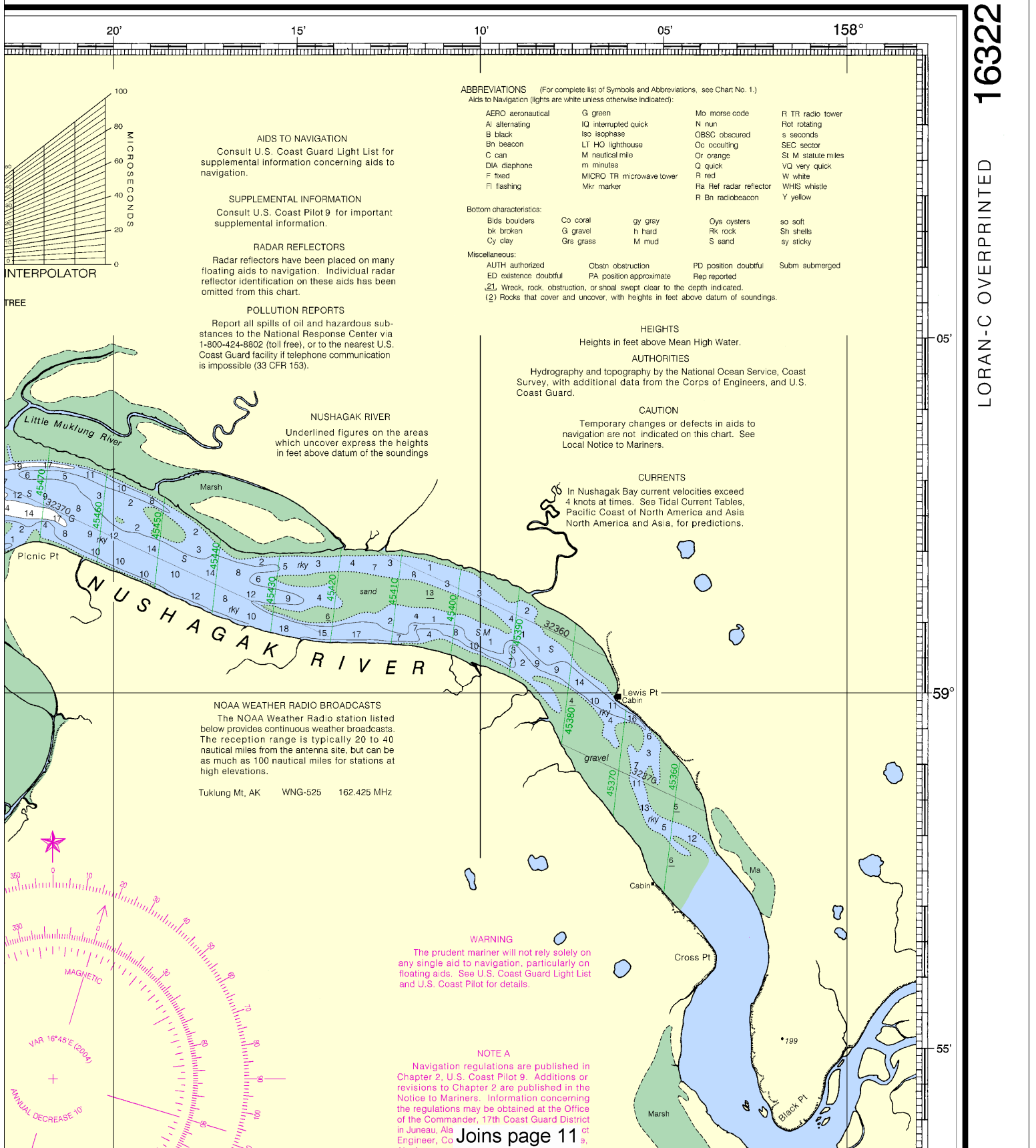
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See Note on page 5.

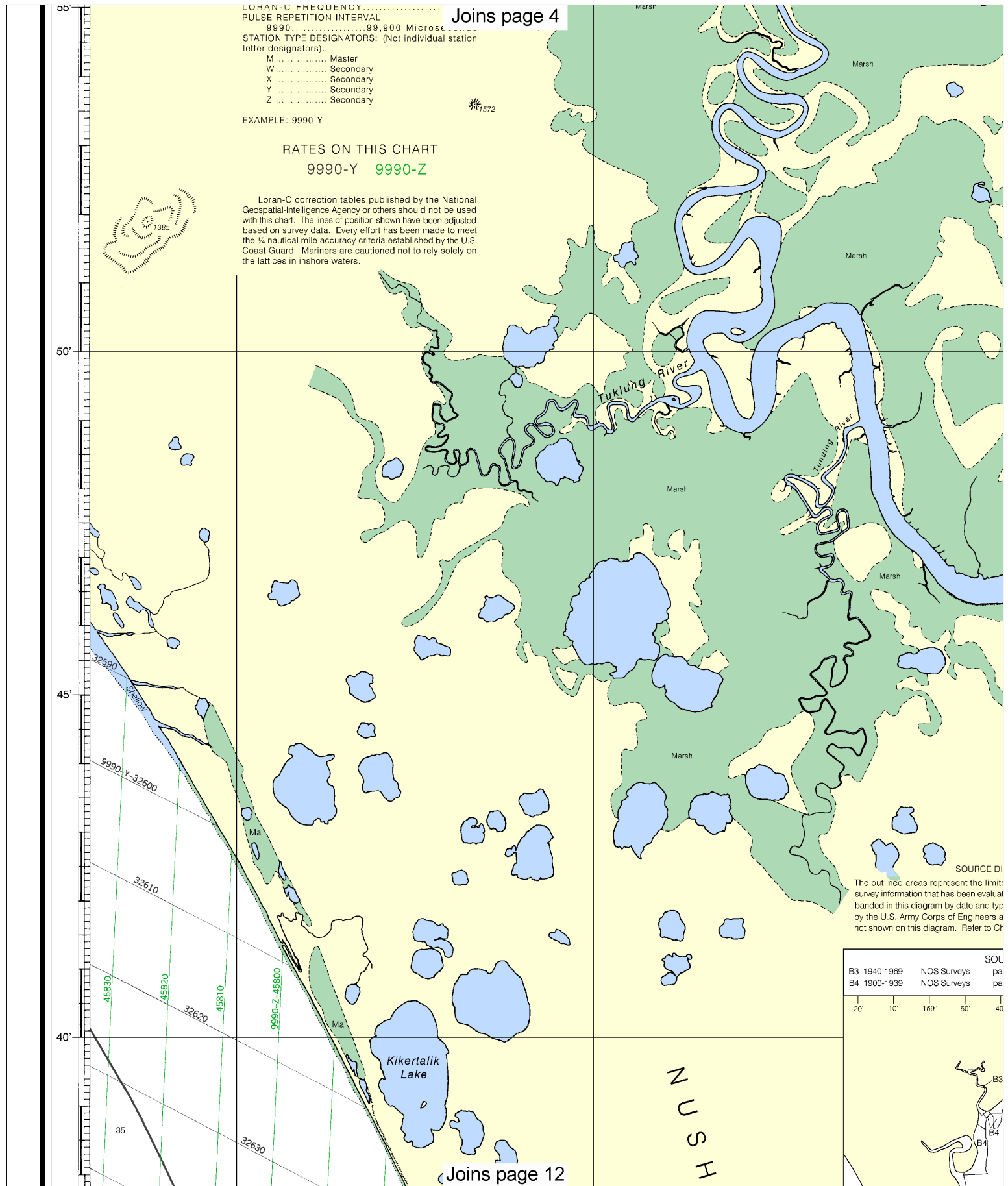




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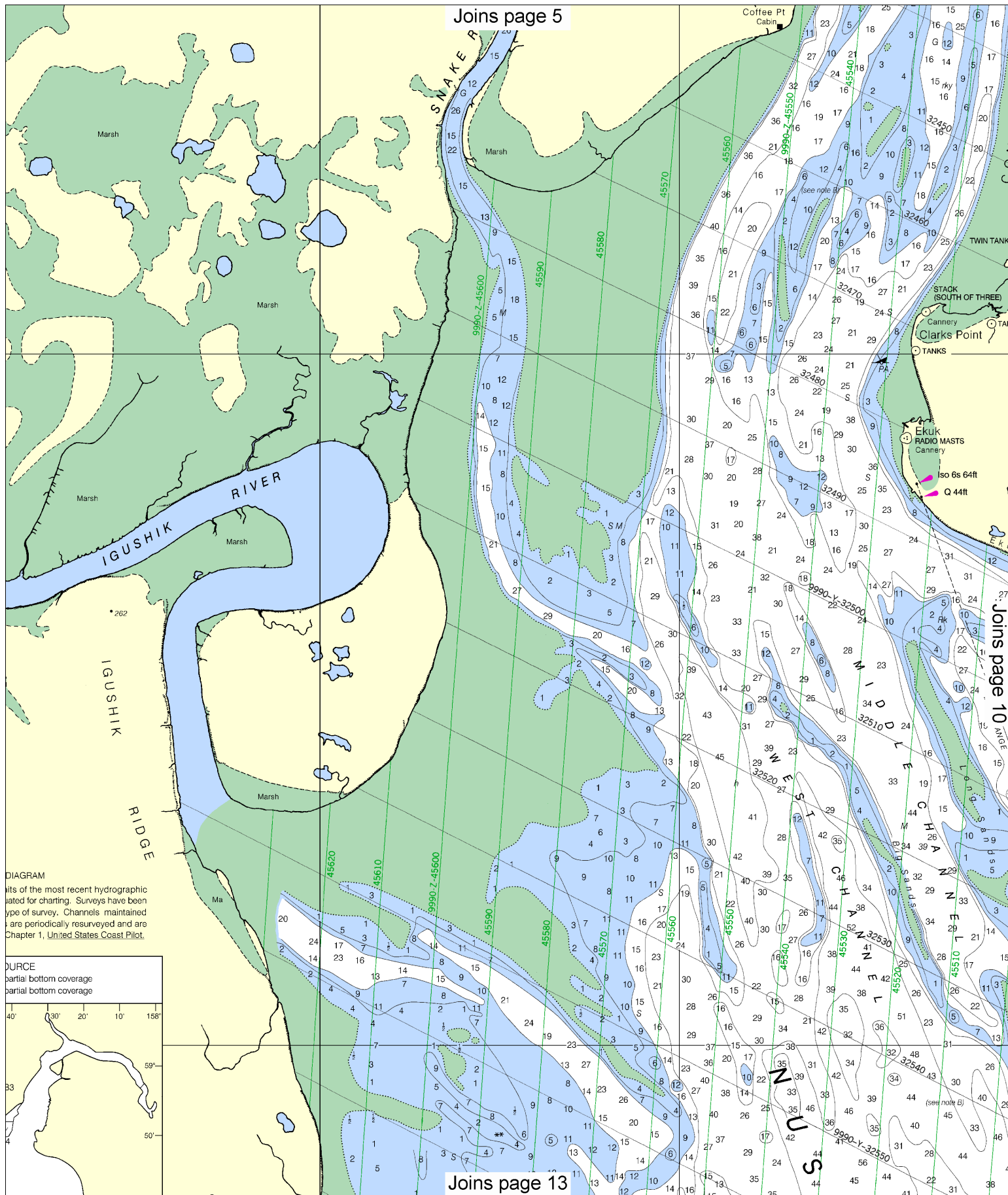


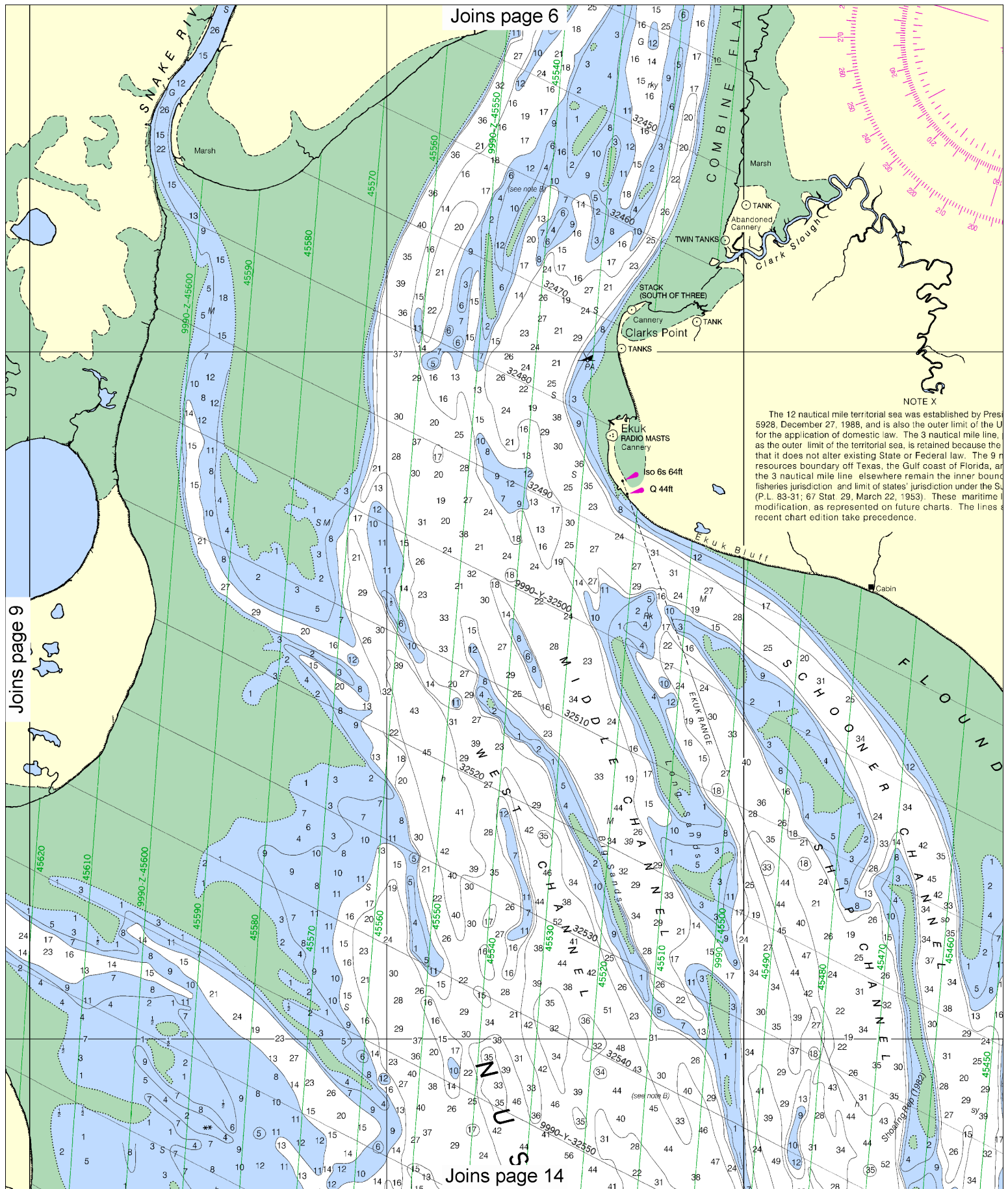
16322
LORAN-C OVERPRINTED



Joins page 13

9

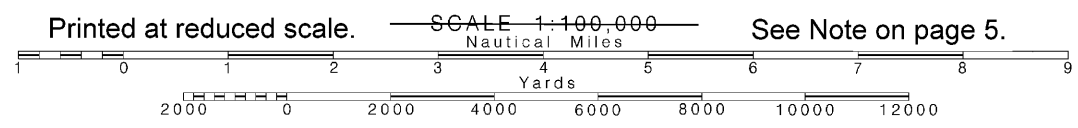




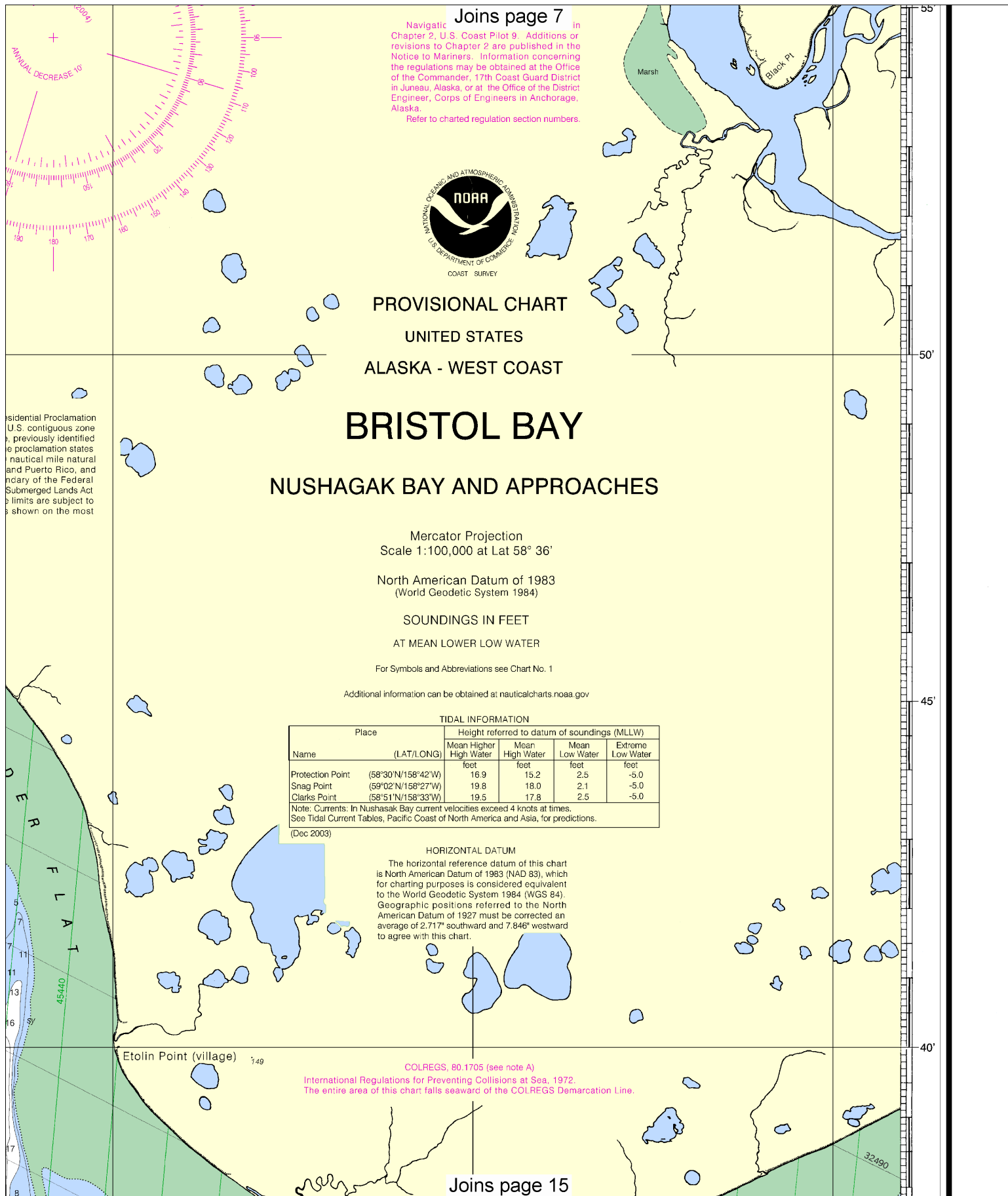
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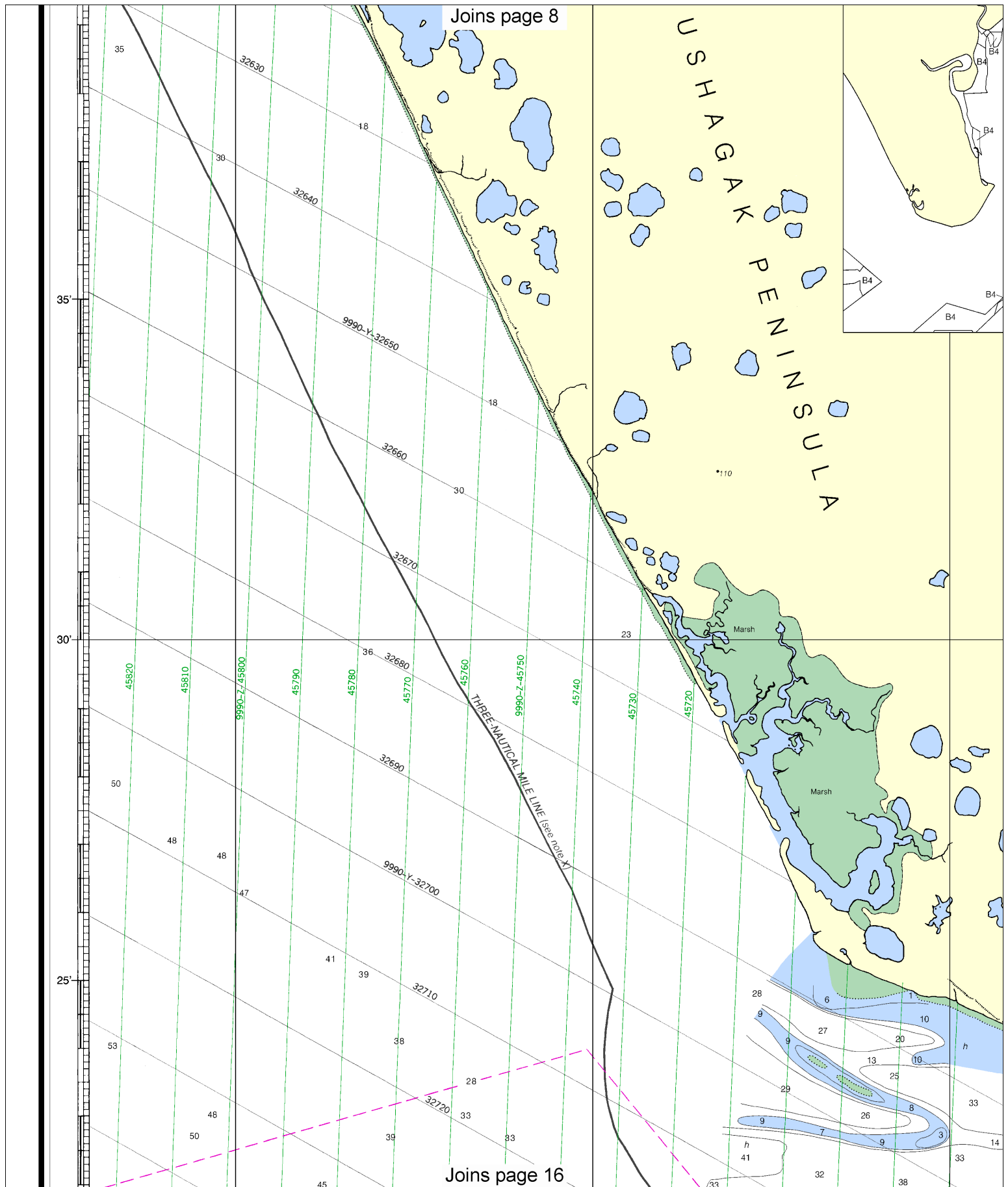
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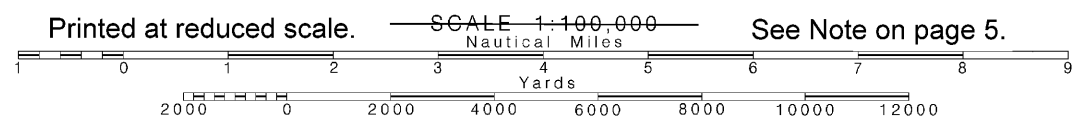
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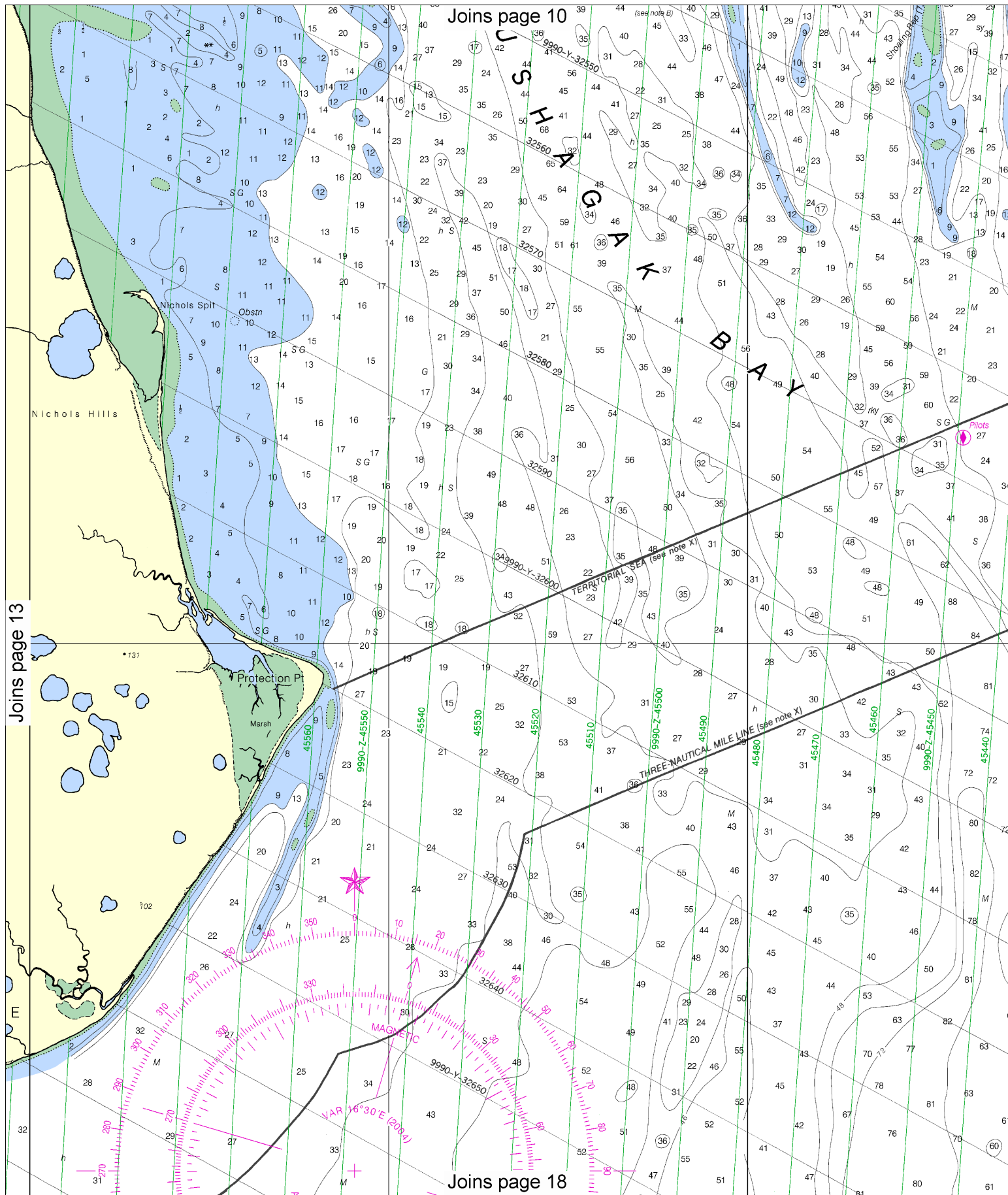




12

Note: Chart grid lines are aligned with true north.





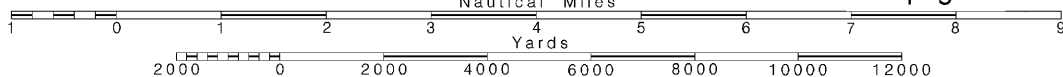
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Note: Chart grid lines are aligned with true north.

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SCALE 1:100,000

See Note on page 5.



Joins page 11

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Cabin

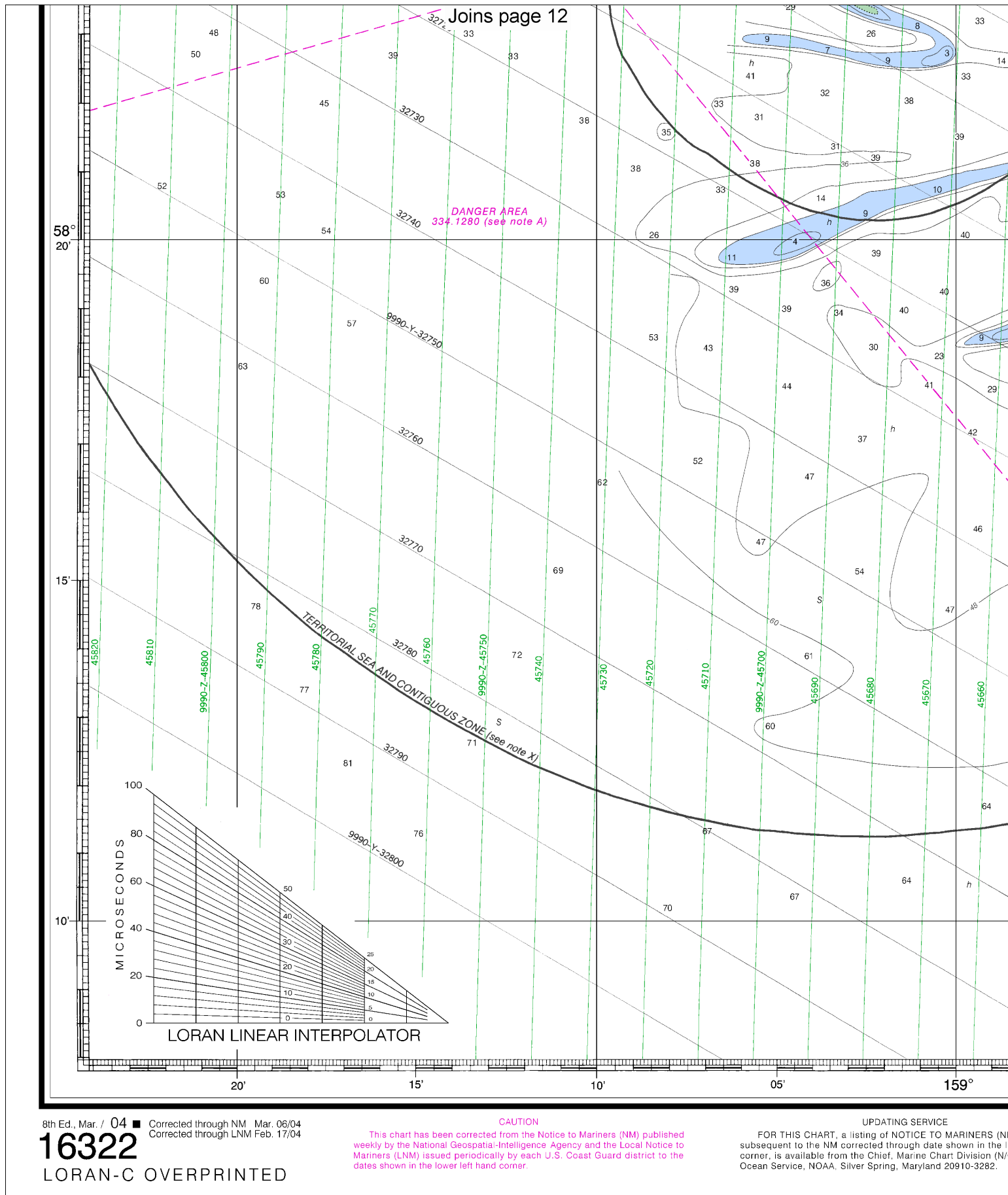
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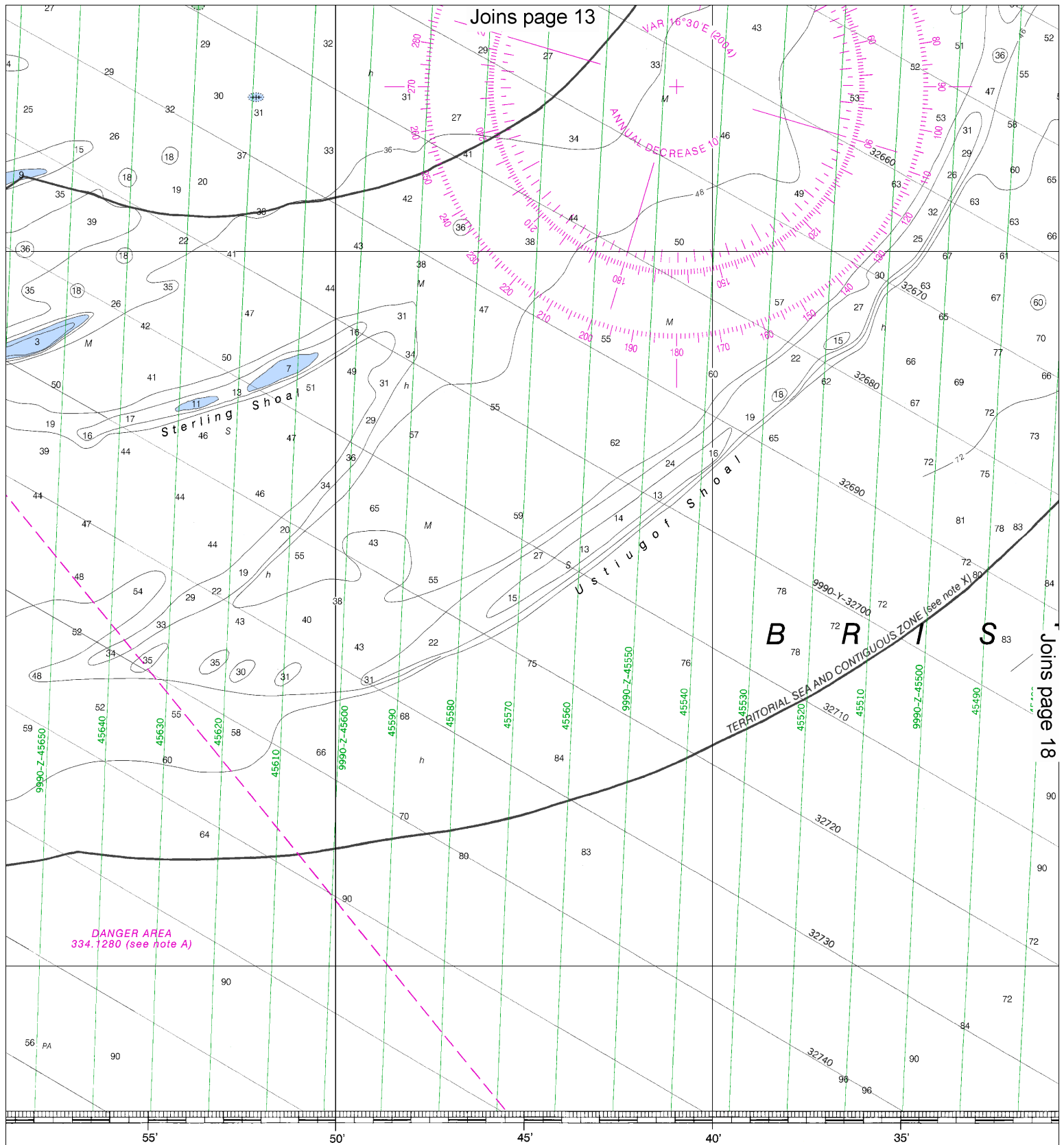
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25'

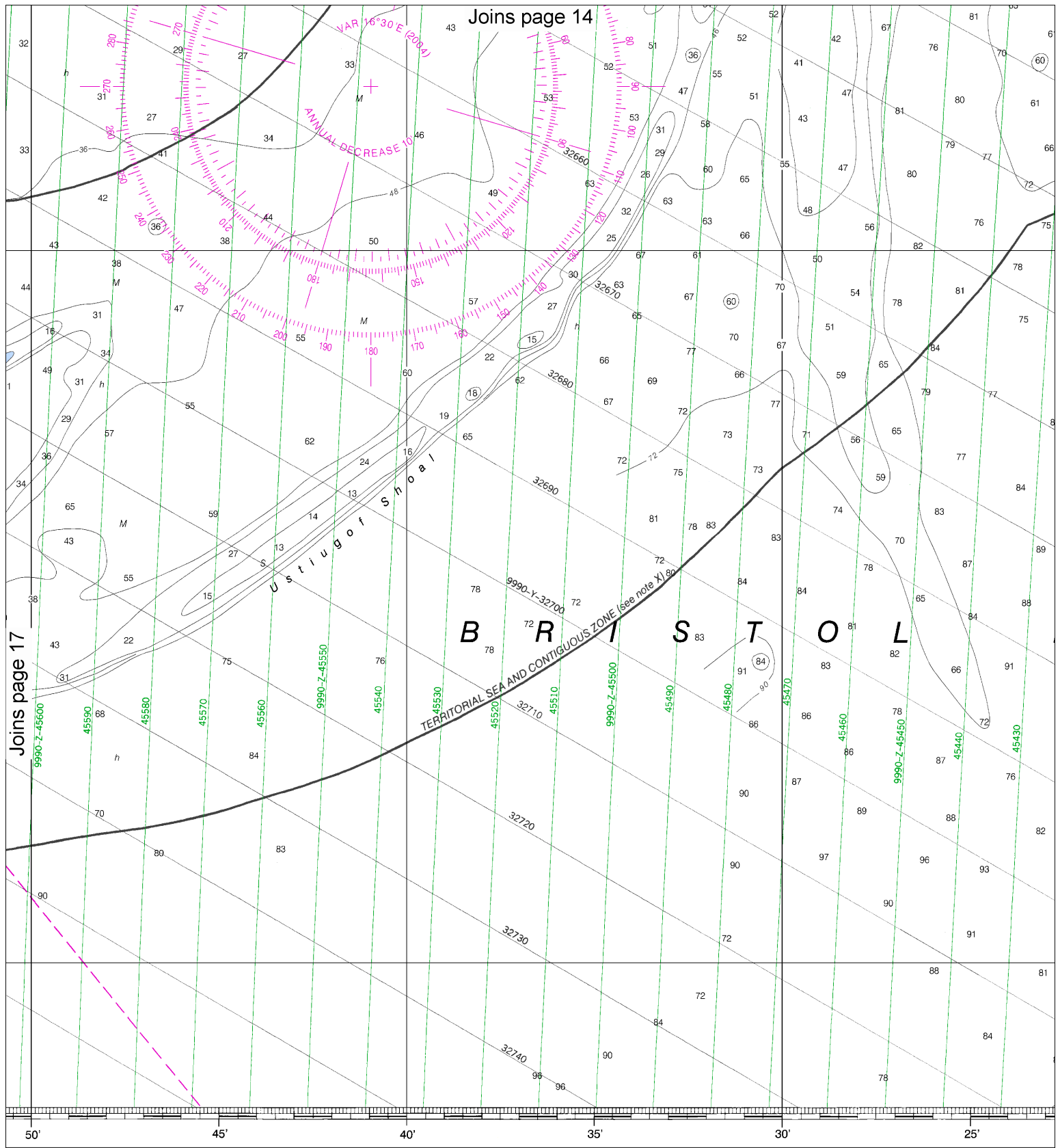
Joins page 19

INS CHART 16223





(NM) corrections lower left hand (US2), National
SOUNDINGS IN FEET
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 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL OCEAN SERVICE
 COAST SURVEY



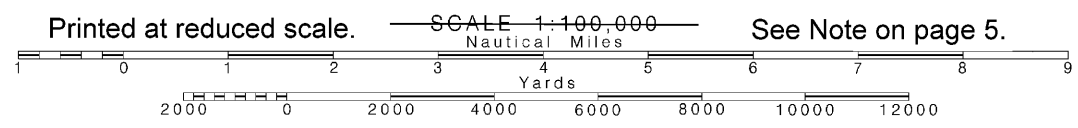
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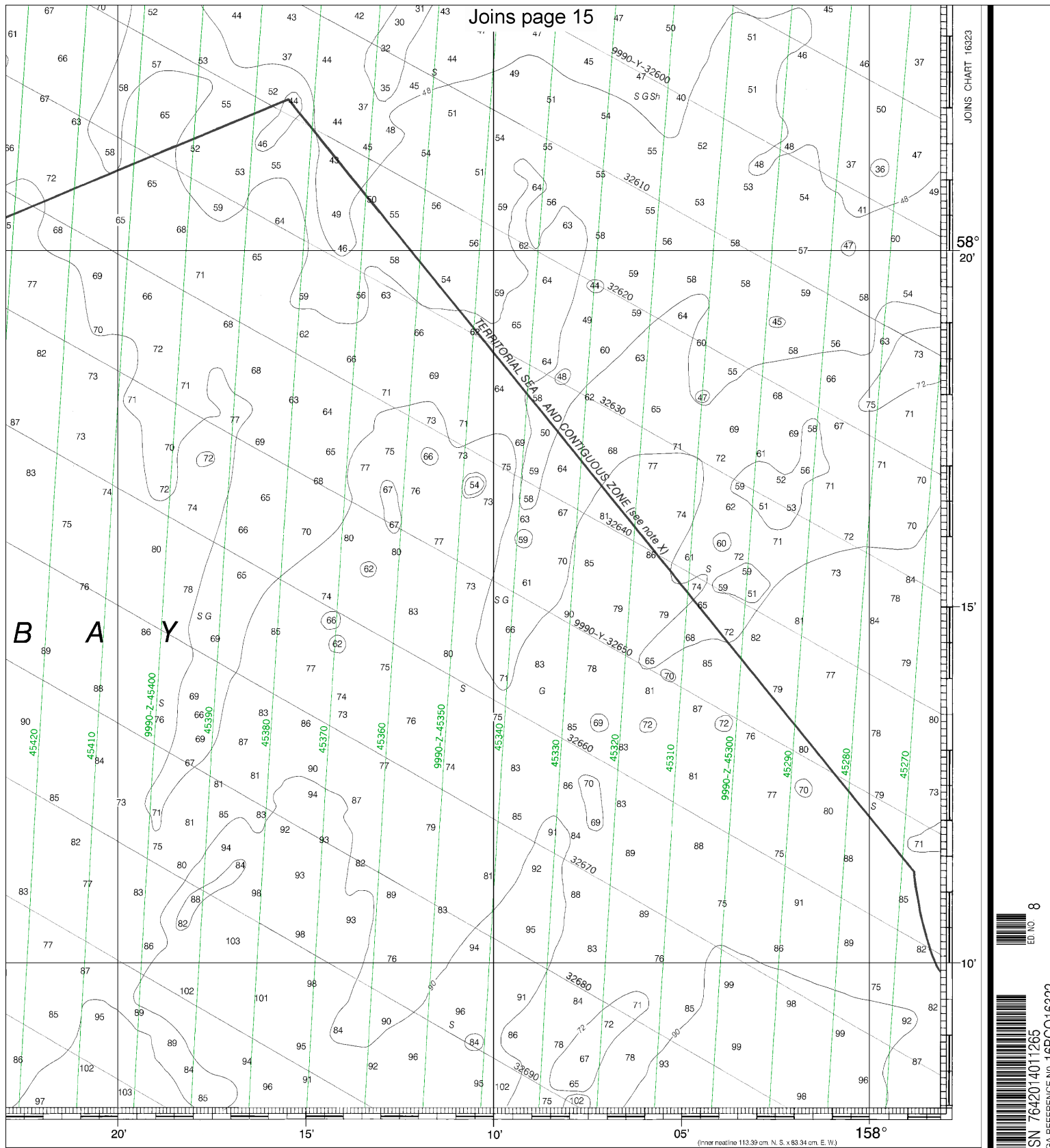
Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

FATHOMS	1	2	3	4	5	6
FEET	6	12	18	24	30	36
METERS	1	2	3	4	5	6

18

Note: Chart grid lines are aligned with true north.





58° 20'

15'

10'

20'

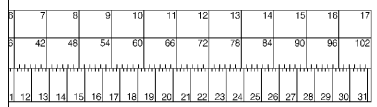
15'

10'

05'

158°

(inner realine 113.39 cm. N. S. x 83.34 cm. E. W.)



Nushagak Bay and Approaches
SOUNDINGS IN FEET - SCALE 1:100,000

16322
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ED NO 8

NSN 7642014011265
NGA REFERENCE NO. 16BC016322



VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

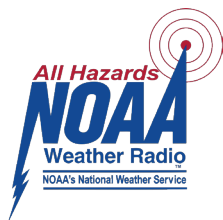
Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Quick References

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Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



— For the latest news from Coast Survey, follow @nauticalcharts



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NOAA's Office of Coast Survey



The Nation's Chartmaker